

PATENT APP. NO. 10/035,214
ATTY. DOCKET NO. 53394.000548

AMENDMENT IN RESPONSE TO JULY 28, 2005 OFFICE ACTION

III. AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (currently amended) An apparatus for depositing particulate matter onto a supply of absorbent core fibrous substrate material moving in a machine direction comprising:
 - a feed tray having an inlet for receiving a supply of particulate matter;
 - a shuttle pan slideably positioned to form at least part of a lower pan of the feed tray;
 - the shuttle pan having an outlet edge located proximal the supply of absorbent core fibrous substrate material, the outlet edge being offset in the machine direction from the feed tray inlet, and being located so that the supply of particulate matter passes over the outlet edge to exit the feed tray and be deposited on the supply of absorbent core fibrous substrate material;
 - the shuttle pan having a range of motion comprising a forward stroke and a backward stroke, wherein during the forward stroke the outlet edge follows the supply of absorbent core fibrous substrate material; and
 - a mechanism for moving the shuttle pan through its range of motion.
2. (original) The apparatus of claim 1, wherein the supply of particulate matter is a supply of superabsorbent particles.
3. (original) The apparatus of claim 1, wherein the supply of absorbent core fibrous substrate material comprises a supply of cellulose acetate tow.
4. (original) The apparatus of claim 1, wherein the shuttle pan forms substantially all of the lower pan of the feed tray.

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5. (original) The apparatus of claim 1, wherein the supply of absorbent core fibrous substrate material is conveyed by a conveying mechanism that is offset from the outlet edge by an offset distance.
6. (original) The apparatus of claim 5, wherein the offset distance is from about 0.25 inches to about 4.00 inches.
7. (original) The apparatus of claim 5, wherein the offset distance is from about 0.375 inches to about 1.00 inch
8. (original) The apparatus of claim 5, wherein the offset distance is from about 0.50 inches.
9. (original) The apparatus of claim 5, wherein the conveying mechanism is substantially parallel to the shuttle pan.
10. (currently amended) ~~The apparatus of claim 5, wherein:~~ An apparatus for depositing particulate matter onto a supply of absorbent core fibrous substrate material moving in a machine direction comprising:
- a feed tray having an inlet for receiving a supply of particulate matter;
 - a shuttle pan slideably positioned to form at least part of a lower pan of the feed tray;
 - the shuttle pan having an outlet edge located proximal the supply of absorbent core fibrous substrate material, the outlet edge being located so that the supply of particulate matter passes over the outlet edge to exit the feed tray and be deposited on the supply of absorbent core fibrous substrate material;
 - the shuttle pan having a range of motion comprising a forward stroke and a backward stroke, wherein during the forward stroke the outlet edge follows the supply of absorbent core fibrous substrate material; and
 - a mechanism for moving the shuttle pan through its range of motion;

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wherein the supply of absorbent core fibrous substrate material is conveyed by a conveying mechanism that is offset from the outlet edge by an offset distance; and

wherein the conveying mechanism is not substantially parallel to the shuttle pan; at one position of the range of motion the outlet edge is offset from the conveying mechanism by a maximum offset distance;

at another position of the range of motion the outlet edge is offset from the conveying mechanism by a minimum offset distance; and

the maximum offset distance is not more than about 300% of the minimum offset distance.

11. (currently amended) ~~The apparatus of claim 5,~~ An apparatus for depositing particulate matter onto a supply of absorbent core fibrous substrate material moving in a machine direction comprising:

a feed tray having an inlet for receiving a supply of particulate matter;

a shuttle pan slideably positioned to form at least part of a lower pan of the feed tray;

the shuttle pan having an outlet edge located proximal the supply of absorbent core fibrous substrate material, the outlet edge being located so that the supply of particulate matter passes over the outlet edge to exit the feed tray and be deposited on the supply of absorbent core fibrous substrate material;

the shuttle pan having a range of motion comprising a forward stroke and a backward stroke, wherein during the forward stroke the outlet edge follows the supply of absorbent core fibrous substrate material; and

a mechanism for moving the shuttle pan through its range of motion;

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wherein the supply of absorbent core fibrous substrate material is conveyed by a conveying mechanism that is offset from the outlet edge by an offset distance; and

wherein the conveying mechanism is a combining drum.

12. (original) The apparatus of claim 1, wherein the range of motion traverses a stroke distance of from about 2 inches to about 13 inches.
13. (original) The apparatus of claim 1, wherein the range of motion traverses a stroke distance of from about 4 inches to about 11 inches.
14. (original) The apparatus of claim 1, wherein the range of motion traverses a stroke distance of from about 6 inches to about 9 inches.
15. (original) The apparatus of claim 1, wherein the feed tray is a vibratory feed tray.
16. (original) The apparatus of claim 1, wherein the feed tray is a fixed feed tray.
17. (original) The apparatus of claim 16, further comprising a metered flow device for conveying particulate matter to the inlet.
18. (original) The apparatus of claim 17, wherein the metered flow device is an auger-type feeder.
19. (original) The apparatus of claim 1, wherein the amount of particulate matter deposited from the feed tray is controlled by a loss-in-weight control system.

Claims 20-33 (cancelled)

34. (new) The apparatus of claim 10, wherein the supply of particulate matter is a supply of superabsorbent particles.
35. (new) The apparatus of claim 10, wherein the supply of absorbent core fibrous substrate material comprises a supply of cellulose acetate tow.

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36. (new) The apparatus of claim 10, wherein the shuttle pan forms substantially all of the lower pan of the feed tray.
37. (new) The apparatus of claim 10, wherein the range of motion traverses a stroke distance of from about 2 inches to about 13 inches.
38. (new) The apparatus of claim 10, wherein the range of motion traverses a stroke distance of from about 4 inches to about 11 inches.
39. (new) The apparatus of claim 10, wherein the range of motion traverses a stroke distance of from about 6 inches to about 9 inches.
40. (new) The apparatus of claim 10, wherein the feed tray is a vibratory feed tray.
41. (new) The apparatus of claim 10, wherein the feed tray is a fixed feed tray.
42. (new) The apparatus of claim 41, further comprising a metered flow device for conveying particulate matter to the inlet.
43. (new) The apparatus of claim 42, wherein the metered flow device is an auger-type feeder.
44. (new) The apparatus of claim 10, wherein the amount of particulate matter deposited from the feed tray is controlled by a loss-in-weight control system.
45. (new) The apparatus of claim 11, wherein the supply of particulate matter is a supply of superabsorbent particles.
46. (new) The apparatus of claim 11, wherein the supply of absorbent core fibrous substrate material comprises a supply of cellulose acetate tow.
47. (new) The apparatus of claim 11, wherein the shuttle pan forms substantially all of the lower pan of the feed tray.
48. (new) The apparatus of claim 11, wherein the offset distance is from about 0.25 inches to about 4.00 inches.

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49. (new) The apparatus of claim 11, wherein the offset distance is from about 0.375 inches to about 1.00 inch
50. (new) The apparatus of claim 11, wherein the offset distance is from about 0.50 inches.
51. (new) The apparatus of claim 11, wherein the conveying mechanism is substantially parallel to the shuttle pan.
52. (new) The apparatus of claim 11, wherein the range of motion traverses a stroke distance of from about 2 inches to about 13 inches.
53. (new) The apparatus of claim 11, wherein the range of motion traverses a stroke distance of from about 4 inches to about 11 inches.
54. (new) The apparatus of claim 11, wherein the range of motion traverses a stroke distance of from about 6 inches to about 9 inches.
55. (new) The apparatus of claim 11, wherein the feed tray is a vibratory feed tray.
56. (new) The apparatus of claim 11, wherein the feed tray is a fixed feed tray.
57. (new) The apparatus of claim 56, further comprising a metered flow device for conveying particulate matter to the inlet.
58. (new) The apparatus of claim 57, wherein the metered flow device is an auger-type feeder.
59. (new) The apparatus of claim 11, wherein the amount of particulate matter deposited from the feed tray is controlled by a loss-in-weight control system.